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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,451	04/30/2001	Ming Duong-van	3397P006	4450
8791	7590	12/16/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN			HOM, SHICK C	
12400 WILSHIRE BOULEVARD			ART UNIT	
SEVENTH FLOOR			PAPER NUMBER	
LOS ANGELES, CA 90025-1030			2666	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/846,451	DUONG-VAN ET AL.	
	Examiner	Art Unit	
	Shick C Hom	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 line 3 which recite "the control point" lacks clear antecedent basis because no control point have been previously recited in the claim and therefore the limitation is not clearly understood.

Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph because they depend from rejected claim 1.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 2, and 5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, and 4 of U.S. Patent No. 6,674,717.

U.S. Patent No. 6,674,717 claim 1 recite a method of controlling packet loss within a congested network, comprising dynamically modulating packet bandwidths over selected communication links within the network at control points thereof in response to measured network performance metrics; and providing feedback to packet origination locations so as to cause these origination locations to alter the rate at which new packets are introduced into the network, wherein the network performance metrics are measured according to at least one of a moving average of a measured quantity, a standard average of the measured quantity, or another filtered average of the measured quantity.

U.S. Patent No. 6,674,717 claim 3 recite wherein the network performance metrics are selected from the list including: throughput of the selected communication links input to the control points and/or buffer occupancy level at the control

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points.

U.S. Patent No. 6,674,717 claim 4 recite wherein the modulation of the packet bandwidth is achieved by varying an inter-packet delay time over the selected communication links at the control points.

Although the conflicting claims are not identical to claims 1, 2, and 5 now claimed, they are not patentably distinct from each other because the application's claim 1 merely broaden the scope of the U.S. Patent No. 6,674,717 claim 1 by eliminating the control of packet loss within a congested network by altering the rate at which new packets are introduced into the network and wherein the performance metrics are measured according to a moving average, standard average, or another filtered average of the measured quantity. Likewise, the application's claim 2 merely broaden the scope of U.S. Patent No. 6,674,717 claim 3 because claim 2 have the same limitations as claim 3 and depends from claim 1. Further, application's claim 5 merely broaden the scope of U.S. Patent No. 6,674,717 claim 4 because claim 5 have the same limitations as claim 4 and depends from claim 1. It has been held that the omission of a element and its function is an obvious expedient if the remaining elements perform the same function as before. In re Karlson, 136 USPQ (CCPA). Also note Ex parte Rainu, 168 USPQ

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375 (Bd. App. 1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

4. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No.

09/846,449.

Copending Application No. 09/846,449 claim 1 recite a method, comprising controlling packet loss within a congested network by setting packet bandwidths over selected communication links within the network at one or more control points thereof, such packet bandwidths being set at critical values determined by monitoring congestion on one or more communication links of the network downstream from the control points.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the application's claim 1 merely broaden the scope of the U.S. application No. 09/846,449 claim 1 by eliminating the control of packet loss within a congested network by monitoring congestion on links downstream. It has been held that the omission of a element and its function is an obvious expedient if the

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remaining elements perform the same function as before. In re Karlson, 136 USPQ (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (Bd. App. 1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Edholm (6,600,721).

Regarding claim 1:

Edholm discloses the method comprising operating a control node of a communication network at a packet bandwidth determined according to observations of performance metrics of the network at the control point (see col. 4 line 54 to col. 5 line 3 which recite the method of control by monitoring the total data

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transferred in a window to control the rate of data flow including the step of measuring the data packet sized to maintain the total data transfer rate remains within the allotted bandwidth).

Regarding claim 3:

Edholm discloses wherein the control node is operated so as to set a control bandwidth to corresponding resonance points of the performance metrics (see col. 5 line 47 to col. 6 line 2 which recite the transmission point such as at a server being used to pace data flow and manage the flow of data in the network).

Regarding claim 5:

Edholm discloses wherein the packet bandwidth is set by varying an inter-packet delay time over selected communication links at the control node (see col. 3 lines 15-26 which recite the step of reducing data flow or decreasing transmission rates by increasing the latency time between data packets outputted).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edholm (6,600,721) in view of Farley et al. (2002/0118649).

Regarding claims 2 and 4:

For claims 2 and 4, Edholm discloses the method described in paragraph 6 of this office action. Edholm discloses all the subject matter of the claimed invention with the exception of wherein the performance metrics comprise one or more of

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throughput, average fetch time and packet loss as in claim 2; and wherein the resonance points are determined by scanning across a range of control bandwidths until one or more of the performance metrics is/are optimized as in claim 4.

Farley et al. from the same or similar fields of endeavor teach that it is known to provide wherein the performance metrics comprise one or more of throughput, average fetch time and packet loss (see paragraph 0005 which recite that the link control parameters determines the link performance characteristics of the connection including packet loss and increase overall throughput); and wherein the resonance points are determined by scanning across a range of control bandwidths until one or more of the performance metrics is/are optimized (see paragraph 0007 which recite that the link control parameters are selected to provide optimal transmission for the flow selected and optimized according to the type of data packets based on loss tolerance). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the performance metrics comprise one or more of throughput, average fetch time and packet loss; and wherein the resonance points are determined by scanning across a range of control bandwidths until one or

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more of the performance metrics is/are optimized as taught by Farley et al. in the communications method of Edholm.

The performance metrics comprising one or more of throughput, average fetch time and packet loss; and wherein the resonance points are determined by scanning across a range of control bandwidths until one or more of the performance metrics is/are optimized can be implemented by including the one or more of throughput, average fetch time and packet loss metrics in the steps of monitoring and measuring of Edholm and including the step of scanning across a range of control bandwidths until one or more of the performance metrics is/are optimized in the data flow manager of Edholm. The motivation for proving the performance metrics comprise one or more of throughput, average fetch time and packet loss; and wherein the resonance points are determined by scanning across a range of control bandwidths until one or more of the performance metrics is/are optimized as taught by Farley et al. in the communications method of Edholm being that it provides more efficiency for the system since the bandwidth can be optimize according to throughput and packet loss.

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Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Blanco et al. disclose network bandwidth control.

Kawakami et al. disclose multiplex transmission system and bandwidth control method.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH

A handwritten signature in black ink, appearing to be 'Jm' or similar, written in a cursive style.

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